Appendix K SECTION 404(b)(1)

SECTION 404(b)(1) EVALUATION

CENTRAL AND SOUTHERN FLORIDA STUDY MODIFIED WATERS DELIVERY TO THE EVERGLADES NATIONAL PARK

PROPOSED IMPROVEMENTS TO THE TAMAIMI TRAIL DADE COUNTY, FLORIDA

I. Project Description

a. <u>Location</u>. The proposed work will be performed in the western-central portion of Miami-Dade County, Florida (Figure 1). The potentially impacted local areas lie in a narrow strip on the south side of the existing U.S. Highway 41 commonly called the Tamiami (Tampa to Miami) Trail, and the north side of the L-29 Levee. The Tamiami Trail, the L-29 Canal, and particularly the L-29 levee on its north side, form the southern boundary of the South Florida Water Management District's WCA 3B. The south side of the project area is bounded by the Everglades National Park.

The limits of the proposed project begin slightly more than one mile west of the intersection of Krome Avenue and Tamiami Trail and extend approximately 10.7 miles to the west. The L-29 Canal, also known as the Tamiami Canal, runs along the north side of the Tamiami Trail through this area. The project limits are more definitively marked at each end by two water-control structures across the canal, S-334 on the east, and S-333 on the west.

b. <u>General Description</u>. Under the current authorized and approved plan Modified Waters Delivery Plan, water would be transferred from WCA 3A to WCA 3B by constructing three new water control structures at Levee L-67A and three new water control structures at L-67C. Water would be passed from WCA-3B through S-355A and S-355B to the L-29 Canal and through the existing culvert system under the Tamiami Trail into Northeast Shark River Slough. When the General Design Memorandum (GDM) was completed in 1992 it was believed that existing culverts under the roadway would be adequate to convey the flow of water. Subsequent hydrological analyses, however, revealed that the head height in the L-29 Canal required for the culverts to convey the increased water could adversely affect the structure of Tamiami Trail and overtop the highway under certain conditions.

The proposed plan calls for identifying a technical solution to provide modifications to the Tamiami Trail culvert system that would allow for the unimpeded conveyance of water from WCA-3B and the L-29 Canal north of the Tamiami Trail to the Northeast Shark River Slough and the ENP south of the Tamiami Trail, as provided by the 1992 GDM.

The Preliminary Recommended Plan is Alternative 7a, which combines features of Alternative 5 and Alternative 2. It consists of modifying the existing Tamiami Trail profile and typical section at the beginning and end of the project area, and the construction of an approximately 3,000-foot bridge. The bridge will begin approximately one mile from the western end of the corridor. Alternative 7 is divided into two subalternatives (7a [without water quality treatment] and 7b [with water quality treatment]).

Under Alternative 7a the existing Tamiami Trail embankment profile and typical section will be modified for approximately one mile at the western end of the project and approximately 9.4 miles at the eastern end. The centerline will fall very close to the centerline of the existing highway. The existing asphalt pavement will be left in place to serve as a base. Low areas will be leveled to a minimum elevation of 11.0 feet, and a 6-inch asphalt overlay will be added.

Approximately 3,000 feet of the roadway would be reconstructed as an elevated structure. The bridge typical section would be standard throughout the entire length, with two travel lanes of 12 feet, two shoulders of eight feet, and outside barriers. The low member elevation would be at an elevation of 13.5 feet. The bridge will be equipped with drain scuppers that would discharge directly to the area below. The existing Tamiami Trail embankment will be removed adjacent to the bridge. Access will be provided to the Airboat Association of Florida site be means of a 35'-1" wide bridge with two 12-foot travel lanes and four-foot shoulders.

The construction cost for Alternative 7a is estimated to be \$23,303,807, and the total life cycle cost is estimated to be \$26,222,167.

- c. <u>Authority and Purpose</u>. The Everglades National Park Protection and Expansion Act (PL101-229, Section 104, 16 U.S.C. Part 410r-5 *et seq.*, December 1989, authorized the Secretary of the Army to undertake certain actions to improve water deliveries to the Everglades National Park (ENP) and to take steps to restore natural hydrologic conditions. This act provides the underlying authority for this project. Section 104 of the Act stated:
 - The Everglades National Park is a nationally and internationally significant resource and the park has been adversely affected and continues to be adversely affected by external factors which have altered the ecosystem including the natural hydrologic conditions within the park. Wildlife resources and their associated habitats have been adversely impacted by the alteration of natural hydrologic conditions within the park, which has contributed to an overall decline in fishery resources and a 90 percent population loss of wading birds.

The Act also provided direction for the U.S. Army Corps of Engineers to initiate corrective actions to alleviate deterioration in natural resources of ENP attributed to

changes in water conditions associated with construction of the Central and Southern Florida (C&SF) water management system. The Act stated:

- Upon completion of a final report by the Chief of the Army Corps of Engineers, the Secretary of the Army, in consultation with the Secretary, is authorized and directed to construct modifications to the Central and Southern Florida Project to improve water deliveries into the park and shall, to the extent practicable, take steps to restore the natural hydrological conditions within the park.
- Such modifications shall be based upon the findings of the Secretary's experimental program authorized in section 1302 of the 1984 Supplemental Appropriations Act (97 Stat. 1292) and generally as set forth in a General Design Memorandum to be prepared by the Jacksonville District entitled "Modified Water Deliveries to Everglades National Park." The Draft of such Memorandum and the Final Memorandum, as prepared by the Jacksonville District, shall be submitted as promptly as practicable to the Committee on Energy and Natural Resources and the Committee on Environment and Public Works of the United States Senate and the Committee on Natural Resources and the Committee on Public Works and Transportation of the United States House of Representatives.

The GDM called for in the Act was completed in June 1992. This GDM and its associated Environmental Impact Statement (EIS) for Modified Water Deliveries to ENP is the authorizing document for structural modifications and additions to the existing C&SF Project required for the modification of water deliveries for ecosystem restoration in the ENP. The 1992 GDM stated, "The future without project condition will lead to the further deterioration of unique and outstanding ecological resources of the Everglades that are recognized and valued throughout the world. Therefore, based on the direction provided in the Everglades National Park Protection and Expansion Act of 1989, the goal is to restore natural hydrologic conditions in the Park to the extent practicable. Meeting this goal will lead to improvements in the abundance, diversity and ecological integrity of native plants and animals in the Park."

Section 528 of the Water Resources Development Act enacted October 1996 (Public Law [PL] 102-580) was entitled "Everglades and South Florida Ecosystem Restoration." This authorized a number of ecosystem restoration studies, now collectively known as the Comprehensive Everglades Restoration Plan (CERP). As a result of this Act, the Corps submitted a report to Congress on July 1, 1999, containing this comprehensive blueprint for Everglades restoration. Implementation of CERP will further increase the flow of water entering Northeast Shark River Slough. The plan has been approved as the Water Resources and Development Act of 2000.

d. General Description of Dredged or Fill Material.

- (1) <u>General Characteristics of Material</u>. According to Alternative 7a, no fill or dredged material outside the existing right-of-way will be necessary to upgrade the existing roadway. The recommended approach is to leave the existing asphalt pavement as a construction platform and serve as a black base. Low areas will be leveled to minimum elevation of 11.0 feet by constructing a thick structural overlay on top of the existing asphalt roadway.
- (2) <u>Quantity of Material</u>. The amount of asphalt used to level the existing asphalt roadway will be calculated once the design phase of this proposed alternative is 100% complete.
- (3) <u>Source of Material</u>. Asphalt will be used to level the existing asphalt pavement to a minimum elevation of 11.0 feet.
 - e. Description of the proposed Discharge Site.
- (1) <u>Location</u>. Although there is not a proposed discharge site, the location of the proposed activity will be a 10.7 mile extent of the Tamiami Trail west of Krome Avenue in central Miami-Dade County.
- (2) <u>Size</u>. The area to be constructed is a 10.7 mile portion of the Tamiami Trail.
- (3) <u>Type of Site</u>. The site is located on the Tamiami Trail and is characterized as a paved asphalt roadway. The typical roadway section consists of two 12-foot wide travel lanes, an 8-foot wide shoulder on each side of the roadway, and a guardrail at each edge of the shoulder.
- (4) Type of Habitat. Adjacent to the Tamiami Trail are mostly natural areas with long and short hydroperiod wetlands as well as an abundance of interspersed willowheads, bayheads, and hardwood hammocks. Sawgrass (*Cladium jamaicense*) communities dominate the long hydroperiod wetlands while muhly grass (*Muhlenbergia capillaris*) and black sedge (*Schoenus nigricans*) dominate the short hydroperiod wetlands mostly influenced by NESRS and local rainfall. There are four herbaceous wetland cover types in the Everglades: (1) sloughs with deep, permanent water levels, (2) sawgrass marshes with semi-permanent water levels and long hydroperiods, (3) wet peat prairies, and (4) wet marl prairies with shorter hydroperiods. These are characterized by the average flooding depth and the duration of the flooding period, and by their predominant plant cover.
- (5) <u>Timing and Duration of Discharge</u>. The timing will be phased depending on the season and proximity to Federally endangered species locations. The total duration of discharge is 24 months.

f. <u>Description of Disposal Method</u>. According to this alternative, no material outside of the existing right-of-way is expected to be excavated or receive fill.

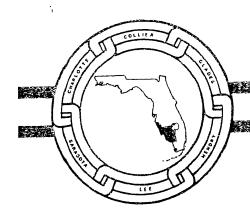
II. Factual Determinations

- a. Physical Substrate Determinations.
- (1) <u>Substrate Elevation and Slope</u>. The elevation is between 10.06 and 11.92 NGVD, with very little slope.
- (2) <u>Sediment Type</u>. The sediment associated with the proposed project area is typically black to dark brown muck underlain by soft porous limestone.
- (3) <u>Dredge/Fill Material Movement</u>. Since no dredge or fill material will be used, there will be no material movement.
- (4) <u>Physical Effects on Benthos</u>. The benthic community may be impacted during the bridge construction. These impacts will be temporary and confined to the period and location of construction. No additional physical effects on benthos are expected.
 - b. Water Circulation, Fluctuation and Salinity Determination.
 - (1) Water Column Effects. No effects on the water column are expected.
- (2) <u>Current Patterns and Circulation</u>. Since the existing box culverts will remain in place, the current patterns and circulation should remain unchanged.
- (3) <u>Normal Water Level Fluctuations and Salinity Gradients</u>. Water level fluctuations and salinity gradients are expected to remain the same.
 - c. Suspended Particulate/Turbidity Determinations.
- (1) Expected Changes in Suspended Particulates and Turbidity Levels in the Vicinity of the Disposal Site. No change is expected in suspended particulates due to the fact that no fill or dredged material outside of the existing right-of-way is being used. Turbidity will be temporary in areas of slow-moving or shallow water.
 - (2) Effects on the Chemical and Physical Properties of the Water Column.
- (a) <u>Light Penetration</u>. Light penetration will be reduced temporarily during construction.

- (b) <u>Dissolved Oxygen</u>. The effects on dissolved oxygen should be minimal.
 - (c) Toxic Metals, Organics, and Pathogens. None.
- (d) <u>Aesthetics</u>. Aesthetics are expected to improve in the area with the removal of exotic vegetation and the construction of an elevated bridge which would offer a somewhat unimpeded view of the ENP.
 - (3) Effects on Biota.
- (a) <u>Primary Productivity and Photosynthesis</u>. No effect, because light attenuation from very briefly suspended particulates would be negligible.
 - (b) Suspension/Filter Feeders. None.
 - (c) Sight Feeders. None.
 - d. Contaminant Determinations.
 - e. Aquatic Ecosystem and Organism Determinations.
 - (1) Effects on Plankton. None.
 - (2) Effects on Benthos. None.
 - (3) Effects on Nekton. None.
 - (4) Effects on the Aquatic Food Web. None.
 - (5) Effects on Special Aquatic Sites.
 - (a) Hardground and Coral Reef Communities. None.
- (b) <u>Sanctuaries and Refuges</u>. The proposed project would enhance hydrologic flows into the NESRS.
- (c) <u>Wetlands</u>. The project would impact approximately 5 acres within the ENP. The WRAP analysis indicated that the Functional Units lost would be 3.42.
 - (d) Mud Flats. None.
 - (e) Vegetated Shallows. None.

- (f) Riffle and Pool Complexes. None.
- (6) Endangered and Threatened Species. None.
- (7) Other Wildlife. None.
- (8) <u>Actions to Minimize Impacts</u>. Best Management Practices will be implemented during construction to assure no additional impacts to wetlands.
 - f. Proposed Disposal Site Determinations.
- (1) <u>Mixing Zone Determination</u>. No mixing zone is expected since no disposal site will be utilized.
- (2) <u>Determination of Compliance with Applicable Water Quality Standards</u>. All standards will be complied with unless a variance should be required for unforeseen reasons.
 - (3) Potential Effects on Human Use Characteristics.
 - (a) Municipal and Private Water Supplies. No effect.
- (b) <u>Recreational and Commercial Fisheries</u>. Alternative 7a would impact recreational bank fishing activities in the vicinity of the bridge.
 - (c) Water Related Recreation. No effect.
- (d) <u>Aesthetics</u>. No short term effects. Long term contribution to the restoration of historical environmental conditions in ENP.
- (e) <u>Parks, National and Historic Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves</u>. The project is a portion of an overall program intended to restore ecological values to the ENP.
- g. <u>Determination of Cumulative Effects on the Aquatic Ecosystem</u>. The cumulative effects on the aquatic ecosystem should be positive due to the restoration of hydrologic patterns to the ENP, and the enhancement of ecological connectivity.
- h. <u>Determination of Secondary Effects on the Aquatic Ecosystem</u>. All benefits to flora and fauna would be secondary, in that the direct effects would be hydrological, but the secondary effects would be ecologically beneficial.
- III. Findings of Compliance or Non-compliance with the Restrictions on Discharge.
 - a. No significant adaptations of the guidelines were made relative to this evaluation.

- b. No practicable alternative exists which meets the study objectives that does not involve discharge of fill into waters of the United States.
- c. After consideration of disposal site dilution and dispersion, the discharge of fill materials will not cause or contribute to, violations of any applicable State water quality standards for Class III waters. The discharge operation will not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.
- d. Alternative 7a will not jeopardize the continued existence of any species listed as threatened or endangered or result in the likelihood of destruction or adverse modification of any critical habitat as specified by the Endangered Species Act of 1973, as amended. Phasing of construction will be required by the USFWS in conjunction with selection of this alternative.
- e. The placement of fill material will not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreational and commercial fishing, plankton, fish, shellfish, wildlife, and special aquatic sites. The life stages of aquatic species and other wildlife will not be adversely affected. Significant adverse effects on aquatic ecosystem diversity, productivity and stability, and recreational, aesthetic, and economic values will not occur.
- f. On the basis of the guidelines, the proposed discharge of dredged or fill material associated with Alternative 7a is specified as complying with the requirements of these guidelines.



Southwest Florida Regional Planning Council

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P.O. Box 3455, N. Ft. Myers, FL 33918-3455 SUNCOM 749-7720 FAX 941-656-7724

June 20, 2000

Mr. Elmar Kurzbach Planning Division, Environmental Branch U.S. Army Corps of Engineers Post Office Box 4970 JACKSONVILLE, FL 32232-0019

RE: Mod Waters Project, Tamiami Trail/U.S. 41 Drainage Modifications For Shark River Slough.

Dear Mr. Kurzbach:

As per our telephone conversation, Southwest Florida Regional Planning Council staff has received and read the Corps' Notice regarding the four alternatives for modifying U.S. 41 to allow passage of greater flows into Shark River Slough. The Regional Planning Council has previously gone on record as supporting increased flows into Everglades National Park, provided that such flows are not deleterious to the environment or public safety.

As you know, U.S. 41 in this area is an evacuation route for both the Southwest Florida Region (particularly Collier County) and the South Florida Region (particularly Dade County). Therefore, any construction activities eventually planned to implement the increased flow regimen must take into account that the roadway will need to remain open; particularly during hurricane season (June 1 through December 1). Given this parameter, Regional staff submits the following comments.

Staff believes that, from an environmental standpoint, the existing roadway will require complete replacement. The original Tamiami Trail was built during the 1920s as a causeway across the Big Cypress Swamp and the Everglades. The culverts that were originally constructed within the roadway were never intended to do more than prevent the roadway from flooding. Environmental Protection was not a consideration. Therefore, staff believes that the original roadway should be removed, and replaced by a new roadway.

Staff is insufficiently familiar with the surrounding area to comment as to whether the new roadway should be north or south of the existing structure. However, the new roadway should be raised above the current elevation. Bridges, rather than culverts, should be used to allow passage of water through the roadway. Of course, the new roadway should be opened prior to the closing of the original.

TO:

Mr. Elmar Kurzbach

DATE:

June 20, 2000

PAGE:

2

RE:

U.S. 41 Drainage Modifications For Shark River Slough.

Given the age and significance of the Tamiami Trail, staff believes that it may be listed in the National Register of Historic Places. Any redesign of the roadway will have to take this factor into account.

Also of importance with regard to redesign is maintenance of at least the current roadway parameters (number of lanes, official signage, width of the roadway, roadway drainage characteristics, etc.). The Southwest Florida Region's Metropolitan Planning Organizations may wish to comment upon these matters. If these agencies are not on your address list, Regional staff can provide their addresses to your office.

Please include the Southwest Florida Regional Planning Council on the address list for any further notices or correspondence regarding these matters. Please feel free to contact either myself, or the Council's Executive Director, Mr. Wayne Daltry, regarding matters associated with the Everglades Modifications and pertaining to the lower west coast of Florida.

Sincerely,

SOUTHWEST FLORIDA REGIONAL PLANNING COUNCIL

Donn E. Heath, AICP

Senior Planner/Assistant DRI Coordinator

GEH/

cc:

Mr. Wayne Daltry, Executive Director, Southwest Florida Regional Planning Council

Mr. Glen Ahlert, AICP, Coordinator, Lee County MPO

From:

Heather_McSharry@fws.gov on 06/21/2000 08:05 AM

To:

Cheryl P Ulrich/CESAJ/SAJ02@CESAJ, James M Baker/CESAJ/SAJ02@CESAJ

cc:

dave_sikkema@nps.gov@SMTP@Exchange, Thomas_Van_Lent@nps.gov@SMTP@Exchange,

Stephen_Forsythe@fws.gov@SMTP@Exchange

Subject: FHA contact for Tamiami Trail

Cheryl and Jim,

Here is a contact from FHA for the Tamiami Trail project. Jay talked to him about the project and he sounded interested. He said he has two staffers in the S. Florida area who could attend future meetings.

George Hadley **Environmental Coordinator** USDOT, Federal Highway Administration 227 N. Bronough St., Suite 2015 Tallahassee, FL 32301

805/942-9650, ex. 3011 fax 942-9691 george.hadley@igate.fhwa.dot.gov

Thanks!

- Heather



United States Department of the Interior

Fish and Wildlife Service Office of the State Supervisor P.O. Box 2676 Vero Beach, FL 32961 National Park Service Everglades National Park 4001 State Road 9336 Homestead, FL 33034

June 22, 2000

Mr. Elmar Kurzbach Planning Division Jacksonville District Corps of Engineers P.O. Box 4970 Jacksonville, Florida 32232-0019

Dear Mr. Kurzbach:

The Fish and Wildlife Service (FWS) and Everglades National Park provide the following comments with regard to the Army Corps of Engineers' (Corps) May 5, 2000, Notice of Intent to Prepare a Supplemental Environmental Impact Statement (SEIS) on Modified Water Deliveries to Everglades National Park (Mod Waters Project) to Address a Change in Design of U.S. Highway 41 (Tamiami Trail) Originally Proposed Modifications.

General Comments

In general, we are pleased that the Corps has begun planning for this important redesign effort that will allow for significant progress towards restoration of the Everglades ecosystem. However, we note that preliminary descriptions in the May 5, 2000, Notice of Intent of alternatives to be considered are not consistent with preliminary alternatives for this project described in the Corps' June 8, 2000, public scoping workshop and June 9, 2000, interagency meeting. Although we understand that alternatives being considered by the Corps may change in this early portion of the redesign effort, clarification of these apparent discrepancies will help us and other interested parties to focus our review on the most pertinent issues.

Specific Comments

The National Park Service (NPS) and FWS have agreed that the following issues should be carefully analyzed in the Corps' planning process and should guide your selection of a preferred alternative.

Mr. Elmar Kurzbach Page 2 June 22, 2000

- 1. Minimize wetland loss and wetland impacts. Consistent with Executive Order 11990, the project should result in no net wetland loss. The existing L-29 and US 41 rights-of-way should be utilized such that there is no loss of wetlands or wetland function. Alternatives locating a new roadway north or south of the existing footprint or rebuilding the existing roadway with a wider footprint would result in substantial losses of pristine Everglades wetlands. Scenarios including temporary bypass roads may temporarily impact wetlands. Such impacts should be avoided as much as possible.
- Expand project objective to include ecological considerations. The Corps needs to more 2. broadly interpret the project objectives. The focus seems primarily related to hydraulic considerations in passing a specified discharge. The project objectives should be expanded to also include ecological considerations, such as increasing ecological connectivity, reducing wildlife mortality, and minimizing landscape-scale impacts on habitats resulting from sheetflow disruption. This is justified under the Everglades National Park Expansion Act of 1989 (PL 102-229). The Corps "is authorized and directed [...] to improve water deliveries into the park and shall, to the extent practicable, take steps to restore the natural hydrologic conditions within the park." Natural hydrologic conditions, including natural sheetflow, would certainly be related to and conducive to ecological connectivity and habitat protection. Moreover, the act has as one of its purposes "to enhance and restore the ecological values" of Everglades National Park, and the Corps is directed to take measures "consistent with the purposes of the project to protect natural values associated with Everglades National Park." Thus, including ecological considerations, and enhancing and restoring the ecological values of the Park in the design of Tamiami Trail modifications is entirely within the Corps' authority and entirely consistent with the purposes of the Modified Water Deliveries Project.

Neglecting to consider ecological considerations may also lead to unnecessary future costs and difficulties. For example, the Comprehensive Everglades Restoration Plan (CERP) calls for removing L-29 levee and the S-355A&B structures. Not including features intended to minimize the ecological consequences of the road may mean the CERP will have to remove L-29, S355A&B, and redo any Tamiami Trail modifications. Certainly not considering the possibility of having US 41 on L-29 levee means that Alternative 3 is much more expensive because of the failure to design S-355A&B to include the potential for a downstream bridge.

Mr. Elmar Kurzbach Page 3 June 22, 2000

Considering ecological values at the outset in developing alternatives will significantly improve the project. The existing roadway serves as a barrier to movement of many wildlife species between two major portions of the remaining Everglades system, reducing gene flow between populations and increasing mortality rates as individuals are killed while attempting to cross the road. The four new bridges contemplated in most of the preliminary alternatives may increase connectivity for fish and aquatic invertebrates, but are unlikely to substantially decrease road-related mortality for other species. Significant improvements in connectivity could be achieved through increased bridging, even to the extent of bridging of the entire roadway.

- 3. Minimize potential adverse effects on the endangered wood stork. The Tamiami West wood stork colony is located immediately south of the existing roadway near the S355B structure and could be impacted by bridge construction nearby and by relocating the roadway to the south or widening the existing footprint to the south. This colony has been the only active wood stork colony in Everglades National Park in recent years and is estimated to contain several hundred nesting pairs in some years. Therefore, impacts to wood storks could be substantial and should be avoided.
- Address water quality concerns. All alternatives should include features to capture and treat stormwater runoff.
- Minimize impacts to wildlife related recreational access. The existing roadway provides important access points for wildlife related recreational use of Water Conservation Area
 Existing levels of access should be maintained or increased consistent with restoration objectives.
- 6. Minimize impacts to Everglades National Park lands. Everglades National Park is not likely to support alternatives that result in wetland loss within the Park. The specified purpose of Everglades National Park Expansion Act of 1989 was to limit habitat loss, and the Secretary of the Interior was directed to manage the area to "maintain natural abundance, diversity, and ecological integrity of the native plants and animals." Moreover, the Secretary of the Interior was directed to manage the area consistent with the National Park Service Organic Act of August 25, 1916. Therefore, alternatives that propose significant wetland loss, particularly within Everglades National Park, are likely to be viewed as inconsistent with project objectives.

Mr. Elmar Kurzbach Page 4 June 22, 2000

- Develop a complete and long-term solution. The Department of the Interior (Department) is expecting that the benefits of the Modified Water Deliveries Project will 7. be delivered in perpetuity by the Central & Southern Florida (C&SF) Project. Alternatives that potentially limit the duration of expected benefits or saddle the Department with long-term, open-ended costs are not desirable. For example, if alternative 4 was selected, the maintenance agreement between the Corps and the Florida Department of Transportation (FDOT) should not, when it lapses, result in the withdrawal of Modified Water Deliveries benefits. Moreover, maintenance costs should be considered C&SF Project Operation and Maintenance costs, borne by the Corps. The Department is not likely to be in a position to bear long-term, open-ended costs as part of this project
- Make Tamiami Trail hydrologic investigations consistent with the conveyance and seepage features being considered in Modified Water Deliveries. A thorough 8. examination of expected water levels in Northeast Shark Slough predicted by regionalscale models in the conveyance and seepage investigations for Modified Water Deliveries is instructive. Downstream of Tamiami Trail, water levels are expected to exceed 7.5 ft mean sea level (msl) for 30 days or more 4 years out of 5. Water levels are expected to exceed 8.5 ft msl for 30 days or more about 1 year in 10. Maximum 24 hour water levels are expected to exceed 9.0 ft msl with a frequency of 1 year in 10. These results vary markedly from predictions by the Corps in a separate and independent analysis dated 19 January 1999, where the Corps recommended four bridges. Assuring that the Tamiami Trail investigations are consistent with other Modified Water Deliveries features is necessary to assure full delivery of expected project benefits.

We appreciate the opportunity to comment. If you have any questions about this letter, please contact Biologist Heather McSharry at (561) 778-0896 or Dr. Thomas Van Lent at (305) 242-7804.

Sincerely yours,

Stephen W. Forsythe

State Supervisor

Ecological Services

Fish and Wildlife Service

Richard G. Ring

Superintendent

Everglades National Park &

Dry Tortugas National Park

Mr. Elmar Kurzbach Page 5 June 22, 2000

cc:

Fish and Wildlife Service, ARD-ES, Atlanta, GA Fish and Wildlife Service, South Florida Field Office, Vero Beach, FL Florida Fish and Wildlife Conservation Commission, Vero Beach, FL Florida Department of Transportation, Miami, FL South Florida Water Management District, West Palm Beach, FL Florida Dept. of Environmental Protection, Tallahassee, FL Florida Dept. of Agriculture and Consumer Services, West Palm Beach, FL Miccosukee Tribe, Miami, FL Seminole Tribe, Hollywood, FL



To:

James M Baker/CESAJ/SAJ02@CESAJ

Subject: Add to mailing list for Tamiami Trail modifications

Jim - Is he on the mail list?

Forwarded by Jon Moulding/CESAJ/SAJ02 on 06/23/2000 12:51 PM -----

From:

amclean@sfwmd.gov AT Internet on 04/12/99 06:38 PM

To:

Jon Moulding

Ihornun@sfwmd.gov AT Internet@ccmail Subject: Add to mailing list for Tamiami Trail modifications

on, please add this individual to the mailing list for Tamiami Trail ods:

ave Balman

boat Association of Florida

_{Э Вох} 650611

liami, FL 33165

hanks, Agnes